

What is claimed is:

1. A method of resin molding,  
comprising the steps of:  
covering a specific area of a molding die, in which air is left, with  
release film;  
clamping a work piece and the release film between an upper die and a  
lower die of the molding die so as to air-tightly seal the specific area;  
discharging the air from the sealed specific area; and  
filling a molding section with resin.
  
2. The method according to claim 1,  
wherein the work piece is a substrate, and an electronic device is  
mounted on one face of the substrate,  
the one face of the substrate is covered with the release film in said  
covering step, and  
the one face of the substrate is air-tightly sealed in said clamping step.
  
3. The method according to claim 2,  
wherein the one face of the substrate is covered with the release film,  
and the substrate is clamped by the molding die,  
outer faces of the electronic device are covered with the release film  
by discharging the air from the sealed specific area, and  
the resin is exerted in a pot and sent to mold the electronic device.
  
4. The method according to claim 2,  
wherein the molding die has a concave section, which is capable of  
accommodating the electronic device,  
outer faces of the electronic device are covered with the release film

by clamping the work piece and the release film with the molding die, and  
the resin is exerted in a pot and sent to mold the electronic device.

5. The method according to claim 2,

wherein the one face of the substrate is covered with the release film,  
and the substrate is clamped in a state, in which the outer faces of the  
electronic device are separated from an inner bottom face of a cavity,

the outer faces of the electronic device are covered with the release  
film by discharging the air,

a connecting portion between the electronic device and the substrate is  
filled with the resin, which has been exerted in and sent from a pot, and

the release film is pushed into the cavity by pressure of the resin,  
which is further sent to fill the cavity and wholly mold the electronic device.

6. The method according to claim 2,

wherein the one face of the substrate is covered with the release film,  
and the substrate is clamped in a state, in which the outer faces of the  
electronic devices are respectively pressed on inner bottom faces of the  
cavities,

the outer faces of the electronic devices are covered with the release  
film by discharging the air,

connecting portions between the electronic devices and the substrate  
and an intermediate portion between the adjacent electronic devices are  
filled with the resin.

7. The method according to claim 2,

wherein an inner bottom face of a cavity is constituted by a cavity  
block, which is capable of elastically moving in the open-close direction of  
the molding die,

one face of the substrate is covered with the release film, and the substrate is clamped in a state, in which an outer face of the electronic device is elastically pressed on the inner bottom face of the cavity,

the outer faces of the electronic device are covered with the release film by discharging the air,

a connecting portion between the electronic device and the substrate is filled with the resin, which has been exerted in and sent from a pot, and

the cavity block is pushed by pressure of the resin, which is further sent to fill the cavity and wholly mold the electronic device.

8. The method according to claim 2,

wherein the substrate, whose one face is covered with the release film, is clamped, and

air pressure is applied in the direction of tightly fitting the release film onto one face of the substrate and outer faces of the electronic device.

9. The method according to claim 1,

wherein an air vent is formed in at least one of the upper die and the lower die, and

the air is discharged from the sealed specific area via the air vent.

10. The method according to claim 1,

wherein new release film is supplied after a prescribed number of the molding actions have been executed.

11. A resin molding machine,

comprising:

a molding die having an upper die and a lower die, which clamp a work piece with release film;

a pot being formed in said molding die, said pot exerting and sending resin so as to mold the work piece;

a film feeding mechanism feeding the release film onto a parting face of at least one of the upper die and the lower die;

a sealing mechanism being provided to the parting face of at least one of the upper die and the lower die, said sealing mechanism enclosing and pressing the release film so as to air-tightly seal a specific area of the molding die, in which air is left, when the upper die and the lower die clamp the work piece and the release film; and

an air sucking mechanism being communicated to the specific area enclosed by said sealing mechanism, said air sucking mechanism discharging air from the molding die.

12. The resin molding machine according to claim 11,

wherein the work piece is a substrate, and an electronic device is mounted on one face of the substrate,

said film feeding mechanism feeds the release film so as to cover the one face of the substrate,

said molding die has: a cavity block, which constitutes an inner bottom face of a cavity and which is separated from an outer face of the electronic device when the substrate and the release film are clamped; and an air vent, which is opened in a clamping face for clamping the substrate and which is communicated to an air path formed in the molding die, and

said air sucking mechanism is communicated to the air path and sucks the air from a space between the release film and the substrate via the air vent.

13. The resin molding machine according to claim 11,

wherein the work piece is a substrate, and an electronic device is

mounted on one face of the substrate,

    said film feeding mechanism feeds the release film so as to cover the one face of the substrate,

    said molding die has: a cavity block, which constitutes an inner bottom face of a cavity, which is capable of moving in the open-close direction of said molding die and always biased, by an elastic member, in the direction of clamping the substrate, which elastically presses the electronic device when the substrate is clamped and which is moved away from the electronic device against elasticity of the elastic member; and an air vent, which is opened in a clamping face for clamping the substrate and which is communicated to an air path formed in the molding die, and

    said air sucking mechanism is communicated to the air path and sucks the air from a space between the release film and the substrate via the air vent.

14. The resin molding machine according to claim 12,

    wherein said molding die has an air compressing mechanism, which is capable of applying air pressure in the direction of tightly fitting the release film onto the substrate and outer faces of the electronic device when the release film is fitted by air-suction.

15. The resin molding machine according to claim 13,

    wherein said molding die has an air compressing mechanism, which is capable of applying air pressure in the direction of tightly fitting the release film onto the substrate and outer faces of the electronic device when the release film is fitted by air-suction.

16. The resin molding machine according to claim 11,

    wherein said molding die has a covering member, which covers a side

face of the electronic device, which is parallel to the direction of a resin flow, when a connecting portion between the electronic device and the substrate is filled with the resin exerted in and sent from a pot, and which is moved away from the side face the electronic device to an edge of a molding section after the connecting portion is filled with the resin.

17. The resin molding machine according to claim 11,

wherein said molding die has a clamping projection, which is provided in a clamping face and which air-tightly closes a molding area when the work piece is clamped together with the release film.

18. The resin molding machine according to claim 11,

wherein said molding die has a cavity block, which constitutes an inner bottom face of a cavity and which includes an absorbing section capable of absorbing a slackened part of the release film.